

Question bank Microcontroller.

Answer following in brief.

- (a) What are the differences between microprocessor and microcontroller.
- (b) Explain function of A & B register in multiplication and division operation.
- (c) Explain function of various flags in PSW register. ~~and its~~
- (d) Explain bit addressable area of internal RAM.
- (e) Explain function of DPTR.
- (f) Explain function of PC.
- (g) Explain alternate function of P₀ and P₂.
- (h) Explain what are the ~~advant~~ register banks of 8051.
- (i) Explain ~~any two~~ instructions.
- (j) (Any two instructions will be asked)
- (k) Explain function of following pins.
- (l) (Any two pins will be asked)

Q2 Answer following in detail.

- (a) Draw and explain architecture of 8051.
- (b) Draw and explain programming model of 8051.
- (c) Explain memory organisation of 8051.
- (d) List all the SFRs of 8051 and explain any five SFRs in detail.

Q3 Programs

- (a) Finding average of 6 nos.
- (b) Transferring block of data from one memory location to other memory location
- (c) Convert Hex no. to BCD no.
- (d) Convert unpacked BCD no to A. two Ascii nos.
- (e) Interface 8 LEDs of 8051 and write a program to glow alternate LEDs on/off continuously.
- (f) Interface 8 LEDs of 8051 and write a program to glow LEDs in rotating sequence.